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Species

Species Research information 003: Syngonanthus restingensis (Eriocaulaceae); Desmoncus (Arecaceae); Ceroxylon (Arecaceae); Geonoma (Arecaceae)

Department of Species Informatics, Species (journal)

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Citation

NANCY HENSOLD, ADRIANA LUIZA R. OLIVEIRA, ANA MARIA GIULIETTI
Syngonanthus restingensis (Eriocaulaceae): A remarkable new species endemic to Brazilian coastal shrublands
Phytotaxa 40: 1–11

Syngonanthus restingensis (S. sect. Syngonanthus) is described from open shrubby restinga in the states of Rio de Janeiro and Bahia, Brazil. The species lacks close relatives, and some unusual traits are discussed, including floral bracts, hydathodes, and pseudovivipary. Its IUCN Conservation Status is assessed as Endangered.

ANDREW HENDERSON
A revision of Desmoncus (Arecaceae)
Phytotaxa 35: 1–88

A taxonomic revision of the Neotropical palm genus *Desmoncus* based on morphological data and morphometric methods was carried out. Eight hundred and fifty-one herbarium specimens were scored for 16 qualitative variables and 16 quantitative variables. Qualitative variables were divided into 15 characters and one trait. Using the Phylogenetic Species Concept, characters were applied to recognize 24 species. These are widely distributed in Central and South America from southern Mexico to Bolivia and Paraguay, and to Trinidad, Tobago, and the Lesser Antilles. Analysis of each species for geographic distribution and quantitative variables led to recognition of 9 subspecies in two of the species, giving a total of 31 taxa. Seven new species (*D. kunarius, D. interjectus, D. loretanus, D. madrensis, D. moorei, D. obovoideus, D. osensis*) and two new subspecies (*D. horridus* subsp. *occidentalis, D. mitis* subsp. *ecirratus*) are described. Five new combinations are made. One of the most variable species is considered to be a species complex and is divided into morphotypes: groups of similar specimens without formal taxonomic status. Nomenclature, descriptions, and distribution maps are provided for each species and subspecies. Images of type specimens of all new taxa are also given.

MARÍA JOSÉ SANÍN & GLORIA GALEANO
A revision of the Andean wax palms, Ceroxylon (Arecaceae)
Phytotaxa 34: 1–64

The genus *Ceroxylon* is revised and twelve species are recognized. A total of 228 specimens from 19 herbaria were studied and field work was carried out in four countries. A list of 113 characters was explored in the specimens and described for each species. Additionally, leaf anatomy and pollen morphology (via Scanning Electron Microscopy, SEM) were examined for twelve and eleven species, respectively. SEM images were used to describe the surfaces of the leaf and fruit epicarp. Information on habitat, natural history, local names, uses and conservation status are incorporated after the morphological description of each species. A key for the identification of the species is provided and illustrations and distribution maps are included for all species.

ANDREW HENDERSON

A revision of Geonoma (Arecaceae)

A taxonomic revision and phylogeny of the neotropical palm genus *Geonoma* based on morphological data andmorphometric methods was carried out. 4990 herbarium specimens were scored for 44 qualitative variables and 27quantitative variables. Qualitative variables were divided into 30 characters and 14 traits. Using the phylogenetic speciesconcept, characters were used to recognize 68 species. These are widely distributed from southern Mexico to Bolivia and Paraguay, and reach the Lesser Antilles and Hispaniola. Analysis of each species for traits, geographic distribution, andquantitative variables led to recognition of 90 subspecies in 18 species, giving a total of 140 taxa. Twelve new species (*G.bernalii, G. concinnoidea, G. deneversii, G. dindoensis, G. fosteri, G. galeanoae, G. gentryi, G. operculata, G. peruviana,G. sanmartinensis, G. schizocarpa, G. venosa*) and 33 new subspecies (*G. brongniartii* subsp. *pascoensis, G. concinna*subsp. *simplex*, *G. concinnoidea* subsp. *coclensis, G. concinnoidea* subsp. *jefensis, G. congesta* subsp. *osensis, G. cuneata* subsp. *guanacastensis, G. cuneata* subsp. *indivisa, G. cuneata* subsp. *minor, G. cuneata* subsp. *rubra, G. deversa*subsp. *belizenesis, G. deversa* subsp. *peninsularis, G. deversa*subsp. *quadriflora, G. ferruginea* subsp. *nicaraguensis, G.lehmannii* subsp. *corrugata, G. longivaginata* subsp. *copensis, G. longivaginata* subsp. *sanblasensis, G. longivaginata* subsp.*vallensis, G. maxima* subsp. *dispersa, G. maxima* subsp.*multiramosa, G. maxima* subsp. *sigmoidea, G. pohliana* subsp.*linharenseis, G. pohliana* subsp. *rodriguesii, G. pohliana*subsp. *unaensis, G. stricta* subsp. *antioquiensis, G. stricta*subsp. *bracteata, G. stricta* subsp. *divaricata, G. stricta* subsp.*pendula, G. stricta* subsp. *pliniana, G. stricta* subsp.*quibdoensis, G. stricta* subsp. *submontana, G. undata* subsp.*tacarcunensis, G. undata* subsp. *tumucensis, G. undata* subsp. *venezuelana*) are described. Forty-one new combinations are made. Several of the most variable species are considered to be species complexes and are divided into morphotypes—groups of similar specimens with no formal taxonomic status. Nomenclature, descriptions and distribution maps are provided for each species and subspecies. Images of the type specimens of all new taxa are also provided. A phylogenetic analysis, using the same 30 characters used for the taxonomic revision was carried out using parsimony analysis. A sample tree and consensus tree are shown and a discussion is given of the various clades.